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REQUEST FOR CERTIFICATE OF CORRECTION		
	Attorney Docket	BERK-036
	First Named Inventor	KEASLING, JAY D.
	Patent Number	7,172,886
	Issue Date	February 6, 2007
	Application Number	10/006,909
	Filing Date	December 6, 2001
	Title: *"BIOSYNTHESIS OF ISOPENTENYL PYROPHOSPHATE"*	

Address to:
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Transmitted herewith for filing is a Certificate of Correction for the above-identified patent. Correction of claims 1, 5, 8, 9, 36-41, and 44 is attached.

It is believed that no fee is due since the error was made by the Patent and Trademark Office. However, the Commissioner is hereby authorized to charge any fees under 37 C.F.R. § 1.20, which may be required by this paper, or to credit any overpayment, to Deposit Account No. 50-0815 order number BERK-036.

Respectfully submitted,
BOZICEVIC, FIELD & FRANCIS LLP

Date: Apr. 19, 2007

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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO : 7,172,886
DATED : February 6, 2007
INVENTOR(S) : KEASLING, JAY D., et al.

In claim 5, column 61, line 47, the word "mevainnate" should be replaced with "mevalonate" and column 61, line 50 the word "acctoacetyl" should be replaced with "acetoacetyl" as shown below:

5. A method for synthesizing isopentenyl pyrophosphate (IPP) via a mevalonate pathway in a host microorganism, wherein the method comprises:

culturing a transformed host prokaryote microorganism that does not normally synthesize IPP through the mevalonate pathway in a suitable medium, the transformed host microorganism comprising a single extrachromosomal expression vector heterologous to the host microorganism that comprises the nucleotide sequence set forth in SEQ ID NO 7 or a fragment thereof encoding the enzymes in a mevalonate pathway; wherein the ~~mevainnate~~ mevalonate pathway comprises:

(a) an enzyme that condenses two molecules of acetyl-CoA to acetoacetyl-CoA;

(b) an enzyme that condenses ~~acctoacetyl~~ acetoacetyl-CoA with acetyl-CoA to form HMG-CoA;

(c) an enzyme that converts HMG-CoA to mevalonate;

(d) an enzyme that phosphorylates mevalonate to mevalonate 5-phosphate;

(e) an enzyme that converts mevalonate 5-phosphate to mevalonate 5-pyrophosphate; and

(f) an enzyme that converts mevalonate 5-pyrophosphate to isopentenyl pyrophosphate,

said culturing providing for production of the enzymes, wherein said production of said enzymes results in production of IPP.

In claim 8, column 62, line 1, the word "whercin" should be replaced with "wherein" as shown below:

8. The method of claim 3, ~~whercin~~ wherein the one or more heterologous nucleic acids is contained in two expression vectors.

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In claim 9, column 62, line 14, the word "nueleotide" should be replaced with "nucleotide" as shown below:

9. A method for synthesizing isopentenyl pyrophosphate (IPP) via a mevalonate pathway in a host microorganism, wherein the method comprises:

culturing a transformed host prokaryote microorganism that does not normally synthesize IPP through the mevalonate pathway in a suitable medium, the transformed host microorganism comprising two extrachromosomal expression vectors, wherein the first expression vector comprises the nucleotide sequence set forth in SEQ ID NO 8, and the second expression vector comprises the ~~nueleotide~~ nucleotide sequence set forth in SEQ ID NO 9 or a fragment thereof, which sequences or fragments thereof from the two vectors are heterologous to the host microorganism and encode the enzymes in a mevalonate pathway; wherein the mevalonate pathway comprises:

(a) an enzyme that condenses two molecules of acetyl-CoA to acetoacetyl-CoA;

(b) an enzyme that condenses acetoacetyl-CoA with acetyl-CoA to form HMG-CoA;

(c) an enzyme that converts HMG-CoA to mevalonate;

(d) an enzyme that phosphorylates mevalonate to mevalonate 5-phosphate;

(e) an enzyme that converts mevalonate 5-phosphate to mevalonate 5-pyrophosphate; and

(f) an enzyme that converts mevalonate 5-pyrophosphate to isopentenyl pyrophosphate,

said culturing providing for production of the enzymes, wherein said production of said enzymes results in production of IPP.

In claim 36, column 65, line 2, the word "coil" should be replaced with "coli" as shown below:

36. The method of claim 31, wherein said transformed host microorganism is *E. ~~coil~~ coli*.

In claim 37, column 65, line 4, the word "coil" should be replaced with "coli" as shown below:

37. The method of claim 32, wherein said transformed host microorganism is *E. ~~coil~~ coli.*

In claim 38, column 65, line 6, the word "coil" should be replaced with "coli" as shown below:

38. The method of claim 33, wherein said transformed host microorganism is *E. ~~coil~~ coli.*

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In claim 39, column 65, line 7, the word "coil" should be replaced with "coli" as shown below:

39. The method of claim 35, wherein said *E. ~~coil~~ coli.* also produces IPP by a DXP pathway.

In claim 40, column 65, line 11, the word "Ralsionia" should be replaced with "Ralstonia" as shown below; and on line 12, the word "coil" should be replaced with "coli" as shown below:

40. The method of claim 35, wherein

a) said enzyme that condenses two molecules of acetyl-CoA to acetoacetyl-CoA is from ~~Ralsionia~~ *Ralstonia*, *Saccharomyces*, or *Escherichia ~~coil~~ coli*;

b) said enzyme that condenses acetoacetyl-CoA with acetyl-CoA to form HMG-CoA is from *Blattella or Saccharomyces*;

c) said enzyme that converts HMG-CoA to mevalonate is from *Sulfolobus*, *Haloferax*, or *Saccharomyces*; and

d) said enzymes that phosphorylate mevalonate to mevalonate 5-phosphate, that convert mevalonate 5-phosphate to mevalonate 5-pyrophosphate, and that convert mevalonate 5-pyrophosphate to isopentenyl pyrophosphate, are from *Saccharomyces*.

In claim 41, column 65, line 26, the word "nueleotide" should be replaced with "nucleotide" as shown below:

The method of claim 74, wherein each of said at least two operons comprises a heterologous nucleic acid selected from the group consisting of:

a) the ~~nueleotide~~ nucleotide sequence set forth in SEQ ID NO 1;

b) the nucleotide sequence set forth in SEQ ID NO 2;

c) the nucleotide sequence set forth in SEQ ID NO 3;

d) the nucleotide sequence set forth in SEQ ID NO 4;

e) the nucleotide sequence set forth in SEQ ID NO 5; and

f) the nucleotide sequence set forth in SEQ ID NO 6.

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In claim 44, column 65, line 41, the word "from" should be added as shown below:

44. The method of claim 64, wherein the enzyme that condenses acetyl-CoA with acetoacetyl-CoA is from *Saccharomyces*.

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